Pediatric Rehabilitation Protocol for Posterior Bankart Repair

This protocol is intended to guide clinicians through the post-operative course for posterior Bankart repair. This protocol is time based (dependent on tissue healing) as well as criterion based. Specific intervention should be based on the needs of the individual and should consider exam findings and clinical decision making. The timeframes for expected outcomes contained within this guideline may vary based on surgeon's preference, additional procedures performed, and/or complications. If a clinician requires assistance in the progression of a post-operative patient, they should consult with the referring surgeon.

The interventions included within this protocol are not intended to be an inclusive list. Therapeutic interventions should be included and modified based on the progress of the patient and under the discretion of the clinician.

Considerations for the Post-operative Posterior Bankart Repair
Many different factors influence the post-operative posterior Bankart repair rehabilitation outcomes, including pre-operative tissue quality, shoulder range of motion, arm strength, and function. Other individual considerations include patient age and co-morbidities, such as: increased BMI, smoking, and diabetes. It is recommended that clinicians collaborate closely with the referring physician regarding specific range of motion or loading guidelines for each individual case.

If the patient develops a fever, unresolving numbness/tingling, excessive drainage from the incision, uncontrolled pain, or any other symptoms you have concerns about contact the referring physician.

PHASE I: IMMEDIATE POST-OP (0-4 WEEKS AFTER SURGERY)

Rehabilitation Goals	• Allow healing of repaired capsule • Initiate early protected and restricted range of motion (ROM) • Decrease pain/inflammation
Sling	• Use of sling as instructed by your surgeon, typically 4-6 weeks
Precautions	• No active ROM • No internal rotation • No horizontal adduction • No upper extremity weight bearing • No overhead activities • No lifting or carrying objects • No pushing or pulling
Interventions	*Pain/swelling management* • Ice, compression, and modalities as needed *Manual therapy* • Grade 1-2 traction and inferior glides in loose packed position to help manage pain and muscle guarding *Passive Range of Motion* • Supine external rotation to tolerance • Supine forward elevation **(limited to 90 deg until 2 weeks post-op and limited to 120 deg until 4 weeks post-op)** • Pendulums

	Strengthening • Isometrics: Internal and external rotation in neutral, flexion, extension and abduction • Rhythmic stabilization and proprioceptive exercises with PT • Scapular retraction • Ball squeeze exercise

PHASE II: INTERMEDIATE POST-OP (5-6 WEEKS AFTER SURGERY)

Rehabilitation Goals	• Gradual increase in ROM • Initiate active assisted/active ROM • Improve strength • Decrease pain/inflammation
Sling	• Wean from sling
Precautions	• No internal rotation behind back • No horizontal adduction • No upper extremity weight bearing • No overhead activities • No lifting or carrying objects • No pushing or pulling
Additional Interventions **Continue with Phase I interventions*	*Active Assisted/Active ROM* • IR with dowel: **limited to 30 deg in plane of scapula** • Flexion with dowel: **limited to 140 deg** • ER with dowel: to tolerance *Strengthening* • Side-lying ER • Prone row • Prone extension • Standing forward flexion to 90 deg • Biceps curl • Resistance band exercises in neutral abduction: ER, IR **(IR limited to neutral)** *Manual Therapy* • Grades 1-3 oscillatory mobs to GH joint. Caution not to over-stress repaired structures
Criteria to Progress	• Shoulder flexion ROM to 120-140 deg • Pain/inflammation controlled • Compliant with post-op precautions

PHASE III: LATE POST-OP (7-12 WEEKS AFTER SURGERY)

Rehabilitation Goals	• Gradually continue to restore ROM • Increase strength • Improve neuromuscular control • Enhance proprioception and kinesthesia
Precautions	• **Discharge sling** • Continue to avoid excessive/forceful horizontal adduction and internal rotation ○ IR behind back to beltline only • UE weight-bearing permitted, but no full bodyweight push-ups

Additional Interventions **Continue with Phase I-II Interventions*	*Range of Motion/Mobility* • PROM and AROM ER @ 90 deg abduction to tolerance • PROM, AROM, and dowel AAROM shoulder flexion to tolerance • PROM and AROM IR in plane of scapula **limited to 60 deg** • PROM and AROM IR @ 90 deg abduction **limited to 45 deg until week 10** ○ **Progress to a maximum of 65 deg until week 12** • Pulleys • Wall slides • Hands-behind-head stretch *Strengthening* • Band exercises: Dynamic hug, bilateral ER/'W's, biceps curl, rows, forward serratus punch, diagonal flexion and extension patterns, ER/IR @ 90 deg • Side-lying scaption • Prone 'T's, 'Y's • Standing scaption • Rhythmic stabilization and proprioception drills • Wall push-ups ***(at week 12)***
Criteria to Progress	• ER @ 90 deg abduction to 85-90 deg, 110-115 deg for throwers • IR @ 90 deg abduction to 60-65 deg • IR in plane of scapular to 60 deg • Shoulder flexion to 165 deg

PHASE IV: TRANSITIONAL (3-5 MONTHS AFTER SURGERY)

Rehabilitation Goals	• Protect the ligament repair • Regain full range of motion • Continue strengthening • Gradual return to full activity

Additional Interventions **Continue with Phase II-III interventions*	*Range of Motion/Mobility*
	• Horizontal adduction stretching
	• ER @ 90 deg abduction stretching
	• Behind back IR AROM and AAROM with towel
	
	Strengthening
	• Initiate weight training with machine resistance: front pull downs, seated row
	  • Add seated bench press **at week 16**
	• Closed kinetic chain: ball on wall
	  • Add push-up progression with unstable surface **at week 20**
	• PNF manual resistance with PT

Criteria to Progress	• Full shoulder ROM • 80% strength of ER and IR compared to contralateral shoulder with dynamometry testing • 80% or > performance with field testing

PHASE V: EARLY RETURN TO SPORT (6-7 MONTHS AFTER SURGERY)

Rehabilitation Goals	• Full shoulder strength • Unrestricted activities • Initiation of interval return to sport training at 28 weeks
Additional Interventions **Continue with Phase II-IV interventions*	*Range of Motion/Mobility* • Soft tissue stretching to restore or maintain full shoulder ROM *Strengthening* • Plyometric exercises: rebounder throws, overhead ball dribbles, deceleration catches, standing ball drops, prone 90/90 ball drops • Progressive weight training involving compound movements and larger muscle groups
Criteria to Progress	• 90% or > strength of ER and IR compared to contralateral shoulder with dynamometry testing • 90% or > performance with field testing • 90% or > on reported outcome measures (DASH, Penn Shoulder Score)

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Contact	Please email MGHSportsPhysicalTherapy@partners.org with questions specific to this protocol

References:

1. Amako M, Arino H, Tsuda Y, Tsuchihara T, Nemoto K. Recovery of Shoulder Rotational Muscle Strength After Arthroscopic Bankart Repair. *Orthopaedic Journal of Sports Medicine*. 2017;5(9):2325967117728684
2. Manske RC, Davies GJ. Postrehabilitation outcomes of muscle power (torque-acceleration energy) in patients with selected shoulder dysfunctions. *Journal of Sports Rehab*. 2003;12(3):181-198.
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4. Dacey S, Meghani O, Dove JH, Lemme NJ, Byrne RA, Owens BD. Lack of Consensus in Rehabilitation Protocols After Posterior Shoulder Stabilization. *Orthop J Sports Med*. 2023 May 4;11(5):23259671231161589